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Jason St. John

Alcove C.R. – VME modules

- Bill set up two VME crates (one old Wiener, one new CAEN) at FTBF and one NIM crate in DAQ rack

- Installed and testing CAEN V1740 wave form digitizer and clock fanout in CAEN crate

- V2918 (new) and V1495 (borrowed) installed in Wiener

- One A3818 PCI card in lariat-daq01 connected to Wiener crate

- Another A3818 PCI card in lariat-daq02 connected to CAEN crate

Alcove CR – digitizer related

- Upgraded all cards' firmware to latest version from CAEN, after some trouble

- Installed various CAEN packages, Comm, VME, Upgrader, Digitizer, WaveDump

- Tested digitization of V1740 with WaveDump, looks good

- Tried external clock for V1740, card balks, investigating

Questions answered

- The V1740 **does have** a front panel reset signal for the timing counter

- Aria will be providing **four wire chambers** and new TDC readout for Lariat

  - not be the existing MTest ones

Alcove C.R. – Trigger stuff

- NIM rack with analog inputs from 3 scintillator counters and 3 Ckov in MT6

- Discriminated output of the above + start and end spill logic signals

- NIM→ECL→1495. Cable schlepping

- VME prog. to configure and readout 1495

- Can transmit NIM logic signal to computer using V2718 crate controller

- 1st use: spill by spill readout of 1495 as multi-channel scalar

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Alcove C.R. – Trigger todos

- FW development to allow NIM inputs to reset clock and counters

- Test coincidence and veto patterns

- Bandwidth test of 1495

  - Currently running at 40MHz

  - Need burst generator module...

- ...or 2718 pulser output (40Mhz)

  - trouble with pulser software enable

  - emailed test program to CAEN

Annoyance – CAEN software

- `CAENVMElib`

  - low level VME functions (read32, write32, IACK, IRQwait, etc.)

  - **Access special functions on controller** (pulsers, LEMO I/O)

- `CAENComm`

  - Wraps VME lib. A bit higher level. **No controller access.**

  - Doesn't work with VMElib in same program?!!

- `CAENDigitizer` – **digitizers only**

  - Wraps VMElib. Higher level. **Data unpacking**.

  - May not work with VMElib... works with Comm

- *I have complained about this needless situation in the past. We may need to upgrade the level of complaint.*

Artdaq – Bill

- Bill tried out artdaq-demo and toy data source, mostly successful, but still issues to work out with Kurt Biery

- Starting work on V1740 readout controller class in ArtDaq / DS-50 framework

- Communications with Kurt Biery

  - DS-50 F/W is not ideal for a small experiment

- Kurt's group will clean things up, subsuming general class from DS-50 into ArtDaq over the next month

  - their manpower is limited

Artdaq – Jonathan

- Jonathan started with the art-daq tutorial and has finished the walkthrough on the wiki.

- Trying to internalize the discussions that Bill has had following his work.

- Halloween costume?

"[I] am incredibly busy impersonating Jen while she is out of town and helping coordinate the assembly activities on MicroBooNE."

Counters – Jason & Rob

- Just downstream of FTBF absorber, arranged to move some shelves out of storage room & move racks in.

- Secured a heavy-duty rolling cart to use for supporting paddles & Ckov in the muon halo.

- What commissioning we can accomplish there, and what (if anything) the DAQ development would like to see from this equipment?

Counters – Jason & Rob

- Thinking about how all the instruments around the cryostat can be placed. We're working to coordinate their supports, too.

- Todd Nebel can make what we want, but we have to tell him what we want, how much adjustment room.

- The supports for Roberto's Cosmic will be available week after next.

MCenter C.R.

- Go have a look.

- Bill collecting requests for the new MCenter control room, send to him soon.

- Partial list included in docdb entry.

Training needed??

- I became a RADworker this week.

- You may need to become a radworker too.

- I looked through TRAIN. Also:
  - Controlled access, FTBF orientation

- maybe:
  - Cryogenics systems, ODH, source training, fall protection

- Brian + Aria to say what collaborators need